



# REVEAL KNOWLEDGE OF JAVA RURAL PACITAN ARCHITECTURE EAST JAVA, INDONESIA

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## ABSTRACT

Nowadays, there is a tendency of architectural changes and elimination of Javanese Rural Pacitan in the form of selling the houses and replacing them into modern buildings. This condition will contribute to the vanishing of architecture of Javanese Rural Pacitan, where high architecture with local values that are different from other types of architecture should be preserved. It is, therefore, necessary to reveal by conducting grounded theory. This will provide detailed knowledge on the understanding of architecture of Javanese Rural Pacitan that will be of much beneficial to the development of Javanese architecture and the related community. Together, the community and the local area, expose the presence of Javanese Rural Pacitan architecture which in return creates a distinctive identity of the region.

**Keywords:** Rural Java architecture Pacitan, joglo, limasan, kampung/panjang.

## ABSTRAK

Saat ini terjadi kecenderungan perubahan dan penghilangan arsitektur Jawa Pedesaan Pacitan. Hal tersebut dilakukan dengan penjualan rumah-rumah Jawa Pedesaan Pacitan dan tergantikan oleh bangunan-bangunan modern. Dari sisi keilmuan, kondisi demikian jelaslah memprihatinkan, karena potensi pengetahuan arsitektur Jawa Pedesaan Pacitan baik dari sisi abstrak maupun fisik arsitektural secara otomatis juga akan turut hilang. Padahal pengetahuan-pengetahuan tersebut diduga memiliki nilai arsitektur tinggi dengan nilai lokalitasnya yang khusus yang berbeda dengan arsitektur lainnya. Sebelum semuanya terlambat, kiranya eksplorasi terhadap arsitektur Jawa Pedesaan Pacitan ini haruslah dilakukan; mengingat bahwa pengetahuan akan arsitektur Jawa Pedesaan Pacitan tersebut belum banyak dieksplor. Agar nilai-nilai arsitektur Jawa pedesaan Pacitan dapat terungkap dan dapat menjadi ilmu pengetahuan arsitektur, maka diperlukan pendekatan yang tepat yaitu dengan metode grounded theory. Hasil penelitian ini menemukan adanya tiga tipe arsitektur Jawa Pedesaan Pacitan yaitu joglo, limasan dan kampung (panjang). Joglo dan limasan tidak dapat berdiri sendiri sebagai hunian tetapi harus didukung oleh omah kampung sehingga menjadi satu kesatuan hunian. Khusus omah kampung dapat berdiri sendiri sebagai hunian. Kiranya eksplorasi terhadap arsitektur Jawa Pedesaan Pacitan akan banyak bermanfaat bagi ilmu arsitektur Jawa maupun bagi masyarakat dan wilayah setempat. Bagi ilmu arsitektur jelas akan memperkaya teori-teori arsitektur Jawa maupun fisik arsitekturalnya.

**Kata kunci:** arsitektur Jawa Pedesaan Pacitan, joglo, limasan, kampung (panjang)

## 1. INTRODUCTION

The development of modern architecture phenomenon that have urged Indonesia local architecture, felt real day by day. Domination and influence of modern architecture in the habitat of local architecture began to occur in various places in Indonesia. These conditions resulted in the start of the inefficiency of the underlying roots of the tradition of our local architecture. Amos Rapoport in Supriyana Marizar Eddy (1996), said that although the traditional roots in traditional architecture is no longer be a determining factor. This happens for several reasons: 1) the increase in the types of buildings in greater numbers and too complex to be done in traditional way; 2) the change in moral values (traditional) to engineering value (modern); and 3) originalities have a high values, so people no longer satisfied with the traditional forms.

Similarly, the concept of "panggilan jagad" (call of the universe) in traditional architecture (Java) (Umar Kayam, 1985), which essentially emphasizes the transformation of the values of locality, now it is considered began to fade and be replaced by the concept of functionality and simplicity of Modern architecture (Yulianto Sumalyo, 1997).

One of the local architecture which has the habitat of local architecture who also exposed to the brunt of modern architecture is the rural Java architecture in the district Donorojo, Pacitan, East Java. The influence of

modern architecture in the region empirically have begun to change the existence of rural Java architecture that already longstanding. The influence of modern architecture at the level of the ideal, have changed the outlook and mindset of the people of the existence of rural Java architecture. They said rural Java architecture has been old-fashioned and out-dated; and assume that modern architecture is a better architecture and more prestigious. Empirically, the region has begun to grow new buildings that are patterned structures in modern architecture; and began to happen in the form of residential mixing into Java-modern mixed form.

Changes in Rural Java architecture in the District Donorojo through two stages (Tri Yuniastuti et al., 2016). The first stage, is the change in part and the second stage is a total change. The changes partially in building of rural Javanese architecture occurred on a wooden wall (gebyog) and accessories changed into a brick wall. At this stage, as many as 40 percent of the approximately 8250 a number of buildings, has changed from rural Java architecture building into architectural hodgepodge that is a combination of modern and traditional Javanese. The total change in each building rural Javanese house is transformed into a new building patterned modern architecture, without any touch of local architecture. This occurs because the total change in old buildings are generally traded at a relatively high price, then the former site of the founding of the buildings are sold, then set the building of modern home. At this stage it has reached 22.5 percent. As a result of these changes, the current buildings house architectural style of rural Java pristine living 37.5 percent of the original amount present.

As a result of changing the buildings house rural Java architecture towards building houses modern architectural style, is the loss of the wealth of the nation's work has grown and evolved over hundreds to thousands of years. The works of the nation are getting lost is clearly going to result in the loss of identity in the District Donorojo architecture locality in particular and Pacitan in general. Local people who understand the rural house building Java architecture also will continue to shrink its presence in line with changes in the architecture and mindset of the people. Thus we all will lose some of the science and culture of our own.

Of course, we do not want the presence of the Java architecture Rural Donorojo in the district, Pacitan which basically have the wealth of knowledge of the value of the Java architecture disappear. Before it happen, the rescue action is necessary, Umar Kayam it's called the act asnututi layangan pedhot. One of the important actions considered appropriate and should be made to the existence of the Java architecture countryside in Donorojo, Pacitan is to explore the wealth of architectural to investigate and uncover the peculiarities characteristic of the Java architecture Rural in the region are believed to have the values of local architecture of Java that should be science Rural Java architecture.

## 2. METHODOLOGY

Based on this study, the characteristics of the appropriate paradigm for completing this research is the paradigm of phenomenology, especially "grounded" by Glasser (1969) and Guba (1985). This paradigm is based on empirical search (field) and not be a opposite of the theory, and for achieving the conclusion that a concept or theory. Hypothesis and analysis carried out simultaneously and continuously in the field until the point of saturation; and new can be deduced.

## 3. DISCUSSION

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Rural Java architectural forms in Pacitan Donorojo who have been found were Joglo, limasan and kampung/panjang. The prevailing law in the villages of districts Donorojo, Pacitan, the three forms of the rural Java architecture can stand on their own into omah (house) and can be united into a single entity omah. Of the three architectural form is then joglo form is the only form of architecture can not stand alone become omah; while the other two forms can stand alone or can be incorporated into omah. This is due to the order of the tradition in the villages of districts Donorojo, Pacitan which puts joglo as omah for a single function of a general nature (living room). Unlike the limasan and kampung placed as omah that could double function, limasan used for public and private (family) function as well as the kampung used for pawon and occupancy function.

### 3.1. Omah Joglo.

In villages in the district Donorojo, where omah joglo is less when compared to omah limasan and kampung; even of exploration results found that in each village (hamlet) is not necessarily found omah joglo. From several informants noted that at least the existence of joglo in the Donorojo district because it is very expensive in its construction, much in need of wood in construction, so only those who are rich and who have a high social standard alone is able to have it. Similarly, as revealed by the informant.

“Tempat sebenarnya yang menggunakan joglo baik ciri khasnya jogja- solo atau jatim paling barat itu ya. Itu adalah tempat jadi sebenarnya pemakaian joglo itu sebenarnya adalah orang-orangnya yang kinachek. Itu orang –orang yang dianggap drajat sosialnya lebih tinggi jadi gret sosialnya lebih tinggi. Ya mungkin perangkatlah.” (informan, Mr. Mislan)

“... The one who using joglo are people whom kinachek. It was people who are considered have higher social degree” (Informant Mr. Mislan)

From the exterior, the form of omah joglo has its own uniqueness. Its realization is formed by the unity between the roof at the top supported by gebyog along with saka-saka underneath it. On the roof was found unity of the two parts of the roof is a roof *brunjung* at the top and underneath the *emper* roof. Both are interconnected to form the unity of the roof. At the bottom of the *brunjung* roof, found one or two roof (constantly connected with *brunjung*). If found unity *brunjung* roof with an *emper* roof underneath the joglo relatively small (see picture 1). However, if found to be unity *brunjung* roof with two roof *emper* underneath the joglo the relatively large size as on joglo Sekar village (see picture 2). Seen from the front and rear of the roof at the peak seen be headed, while the left and right side will look tapering. When viewed from the side, the geometric joglo roof is formed by two and three truncated trapezoid with a full size on the bottom and smaller at the *brunjung*.

From the interior side, it would appear that form the framework of omah joglo. Main frame in the form of *saka guru* (main pillars) were four *saka* are located right in the middle of the roof frame shoring *brunjung*. On top of the *saka guru* were found *uleng* elements (beams tiered outside) around the pillars to form a rectangular field of stratified. In general, a rectangular field is divided into four sections; the denominator beams is called *dhadha peksi*. From the findings in the field, two rectangular fields that any closed into the ceiling; but not a few were left open so it looks *suwunan* (*molo beam*) with the roof frame *brunjung*.

On the left and right side of the *saka guru* there are many small-sized pillars, supporting a porch roof (under *brunjung* roof). *Saka-saka* with regular placement is eventually formed a space. To joglo small size it will be found to the two spaces is the living room with the boundary *saka-saka* and patio space surrounding the central space bounded by small *saka*. For joglo large size then there two spaces like the small joglo coupled with the space that surrounds the two spaces.

Other characteristics of omah joglo is an *emper*, that surrounds the building except for the East side. The existence of this *emper* serves as the space between before someone came into the room in omah joglo and also serves as a terrace to sit, especially at the front. While the terrace on the right side and rear widely used for the storage of certain goods.

From the results of exploration in the field, where the architecture Joglo never stand alone as a form omah, but always united with omah limasan and kampung/panjang to establish residence in the yard of the house for one family. As a union joglo-limasan -kampung, the respective roles and functions of mutual support for the realization of container dwelling for a family.

Joglo located on the front has a function as a public space mainly for receiving guests and family activities that are general. Behind joglo found omah limasan that serves as a dwelling (living room and bedroom). On the left side (East) stand omah kampung with the main function as *pawon* (kitchen).



*Joglo with two truncated trapezoid :  
brunjung at the top and emper at  
underneath.  
In interior space, looked saka guru  
and uleng that suport roof frame.*

**Figure 1.** Exterior and interior of Omah Joglo with two truncated trapezoid; Source: Documentation, 2015



*Joglo with three truncated trapezoid: brunjung at the top and continued two emper at underneath.  
In interior space, looked saka guru, uleng and dhadha peksithat suport roof frame.*

**Figure 2.** Exterior and interior of Omah Joglowith three truncated trapezoid  
Source: Documentation, 2015

### 3.2. Limasan

According to the informant, the term limasan appears when the colonial Dutch era occurred. The original name before the term limasan appears is the omah kampung. Similarly, as revealed by the informant Mr. Mislán:

"People call omah limasan started at the Dutch colonialization. The principal forms of above the house is pyramid (limas). Before the Dutch came it called omah kampung"

Omah Limasan is a form of residential houses which dominate in the villages in the district Donorojo, Pacitan. At omah Limasan, whole dwelling main function in a family happens except cooking and shower which has its own building. Based on the exploration results in the field, a family can have one or two omah limasan. Either one or two omah limasan is always supported by the omah kampung that serves as pawon. If a family have one omah Limasan, all of the functions dwelling are in omah limasan; so in this limasan will be found omah spaces such as bedrooms and living room. If the family have two omah limasan, the two houses are lined up in sequence and connect front area and back area. Based on the empirical results, the front of the omah limasan usually serves as a living room and omah limasan on the back serves for family activities.



Omah limasan 1<sup>st</sup>

Interior of omah limasan

Omah limasan 2<sup>nd</sup>

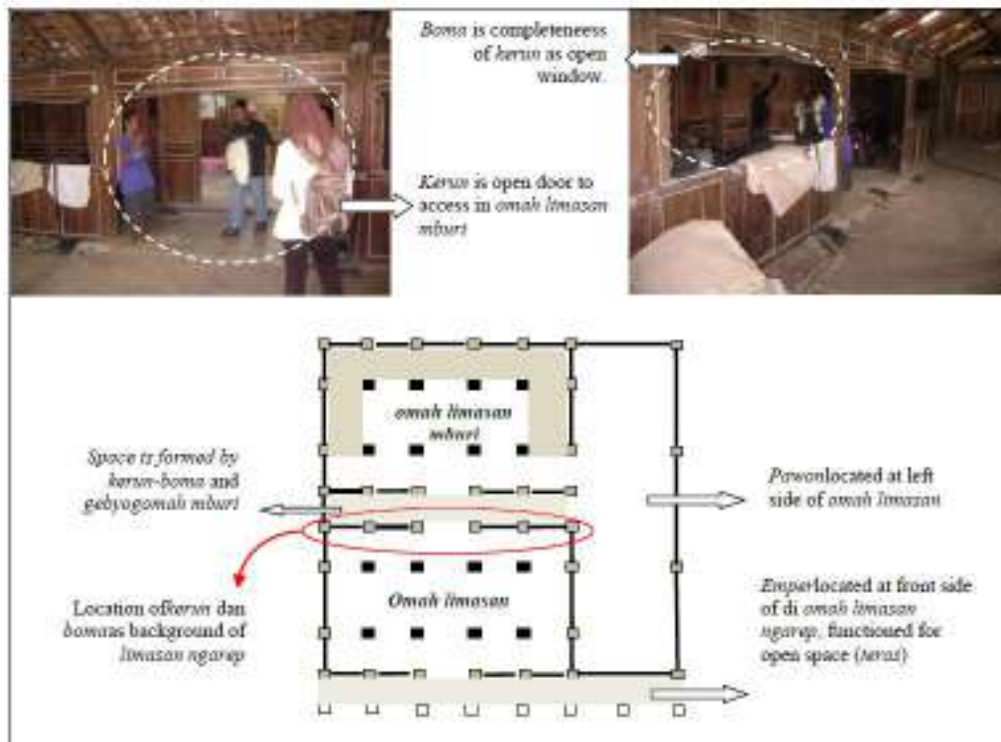
**Figure 3.** Omah Limasan1 and 2  
Source: Documentation, 2015

There are two types of omah limasan; the first type in the middle between the two omah limasan always found Kerun and boma. Kerun and Boma is a kind of gate in omah limasan; formed from gebyog which has a special form with the door (Kerun) in the middle with no doors and window openings (boma) without shutters with a long enough size on the left and right of the door. In omah limasan, Kerun and boma located in the omahlimasan ngarep. The main function Kerun and boma is the entrance to the omah limasan buri. Kerun and boma has a specification of curves, where the curve is not at all found in the support elements on omah limasan in villages in the district Donorojo. The existence Kerun and boma, formed between fairly spacious rooms formed by Kerun-boma and gebyog of omah limasan buri.

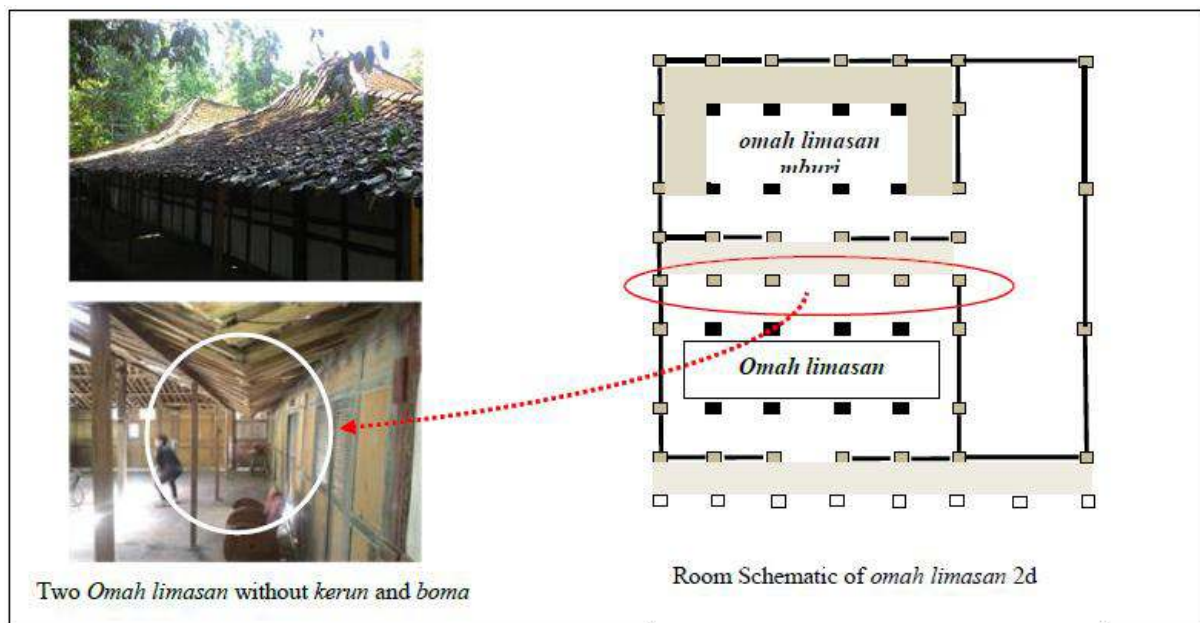
The second type is omah limasan that does not use Kerun and boma; between limasan ngarep and mburi are limited only by gebyog with door. The existence gebyog with door is part of the omah limasan mburi especially



located on the front edge of the omah limasan mburi. At the front of the gebyog, there saka-saka omah limasan lined up to support the emper roof on it and also lay a spacious room omah limasan ngarep.



**Figure 4.** Limasan with Kerun and Boma  
Source: Documentation, 2015



**Figure 5.** Limasan 2 without Kirun and boma  
Source: Documentation, 2015

Judging from the results of observations, one amount of omah limasan or the two have the same form of embodiment formed by the unity of the building frame is wrapped by gebyog as building bottom partition and the roof frame and its pyramid-shaped roof cover at the top. the wood frame forming a limasan made up of eight saka in the middle and limasan surrounded by 16 saka uger-uger on the edge. When omah limasan fitted with the emperan so the number of saka-saka surrounding the saka will increase by 5 to 21 saka. Overall saka saka

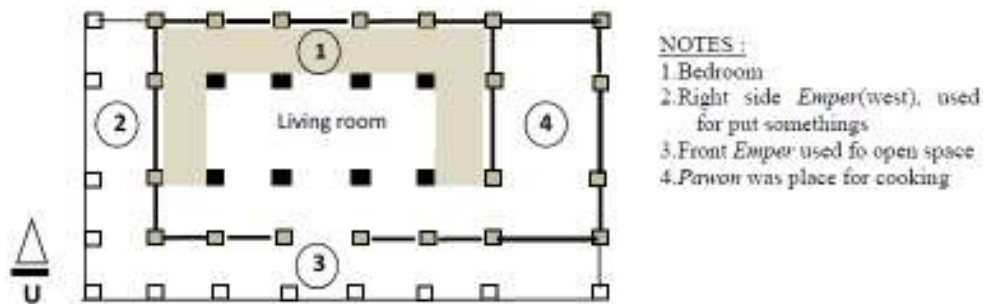
ranging from saka guru, saka ubengan and emper has a height and different magnitudes are getting lower and getting smaller towards the outside of the building. Above the saka 8, will be composed of roof frame limasan stuck with a peak named suwunan. Above Saka 16 will be composed of roof truss that has a lower elevation than the roof formed by Saka 8; and saka 5 will support the emper roof which has the lowest elevation of the whole roof omah limasan.

From the above, the embodiment omah limasan will be formed unitary limasan roof-veranda and emper terrace at the top with saka ubengan and saka uger-uger (saka on the patio) as well as partitions gebyog building. From the front side of the building will look elongated position; including the limasan are also elongated. On the side will be seen in a shortened position; roof shape is formed tapered to form a triangle.

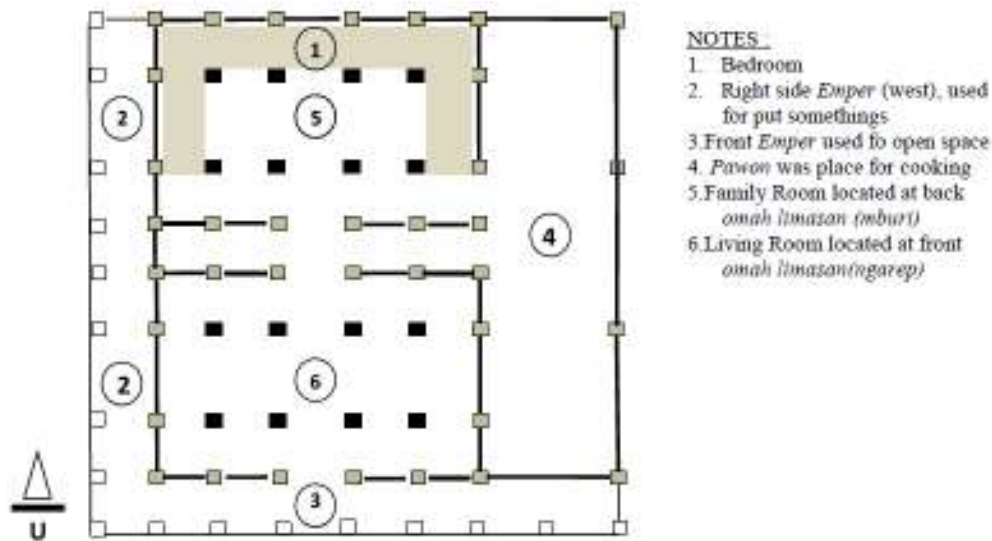


**Figure 6.** Omah Limasan  
Source: Documentation, 2015

In terms of layout, the omah limasan has two types of room that are bedroom and living room. Bedroom is located under emper back roof at right and left side. Living room located under limasan roof. Sometimes found teras at front side of both omah limasan. Both types of omah limasan mine house had pawon located at left side or east side. Specially, the omah limasan 2nd had space that located between front omah limasan and back omah limasan.



**Figure 7.** Room Schematic of Omah Limasan 1st  
Source: Documentation, 2015



**Figure 8.** Room Schematic of Omah Limasan 2nd  
Source: Documentation, 2015

From various information of informants, the small or large size the omah limasan has proportions based on the size of pecak which is a measure foot size with a length of approximately 20-25 cm.

"*iki lho kaki,kaki (pecak), namanya itu pecakan kaki. Ukuran pecakan berbeda-beda, ada yang 25, 20, 23 cm* (informan, Mr. Sokiman)

"This is feet (halibut), his name was pecakan feet. Different size fractions, there were 25, 20, 23 cm" (informant, Mr. Sokiman)

That are standard in this pecakan is a measure for penuwun or nok. Number of pecak on a omah limasan average pecakan ranging from 13, 14, 16, and 17. The appearance of the pecakan proportion, according to the informants associated with the teachings of Islam brought by the trustee Songo. The informant said to be the Mr. Misino that pecakan 14 have the understanding that 13 is the first pillar of Islam and is the Almighty. While 17 pecak is the number rokaat in prayer. The informant also added explanation of pecak 14 and 17. It is said that there are five pillars of Islam, it is broadcast walisongo, so  $14-9 = 5$ . Means the pillars of Islam for people is 5 and 9 that the trustees. While 17 is the number of rokaat for prayers overnight. It was also observed that the size of the pecakan is outside the rules of pecakan; and it is usually omah limasan will become bigger. Thus more narrative informant below.

"The concept of the architecture have a islamic kejawen (Java spiritual belief) mission. Later there pecakan was actually 14 was rukun shalat (islamic prayer pillar). It to there was a culture that for example there are 13 penuwun (tip of the roof) it because the pillars of Islam. But what was happening in the community. With the philosophy is making peaceful life. Fourteen pecak Penuwun that 13 existing first pillar of Islam is almighty God and so on. "(Informant, Mr. Sakino).

"The tip was called penuwun beam, it certainly wear the soles counted up to 17, there were 13 or 14 so, but it was to do with the teaching of Islam at the time walisongo, after i figured out, what the mean by house created by 17 the hand palm? It means if it meaning people of Islam that if you want to get the patronage of the Almighty God, they should run worship for Islam the 17 rakaat.. " (informant, Mr. Misino)

"Landscape contrived 14 was also something to do with his time wali Songo, that's so 14th pillar of Islam that the last 5 when the ancient pillars of Islam which broadcast walisongo, so 14 subtract 9 the last 5 means there are five pillars of Islam, which is the walisongo 9." (informant, Mr. Misino).

### 3.3. Omah Panjang

Based on observations in the field, the omah panjang is the oldest in districts of Donorojo, Pacitan. Omah panjang is the original home there and are so small; and therefore referred to as omah sekar pithi. The main function omah panjang in the beginning was for occupancy, but after the emergence of the limasan, joglo and omah panjang included as a supporter omah joglo and limasan with pawon function (kitchen). In the position as



pawon existence always is to the left or east of the main house (limasan and joglo). The length of this omah panjang adjust or equal to the length of the main house.

When the main house is a omah limasan amounted to one, then the length omah panjang is along the length of the main house; where as when omah limasan totalled two or joglo-limasan combination of the length of the long omah also along unity omah joglo-limasan.

After omah panjang been an important element supporting omah joglo and limasan, not then function as a residential stalled, but still continues today; even also serves to corral. In the position as a function of occupancy and livestock, omah panjang is not integral to the omah joglo and limasan but stands alone as a residential house.

The main characteristics of the omah panjang that could be addressed is located on the roof called the empyak setangkep, the two were reunited roof. Similarly omah joglo and limasan, part of the roof called empyak setangkep supported by saka-saka and wrapped with gebyog as a dividing wall and body cover home so that it becomes a unity omah



Omah Panjang for house Omah Panjang for cage

**Figure 9.** Omah Panjang  
Source: Documentation, 2015

#### 4. DISCUSSION

Based on the discussion of the Rural Javanese architecture in the District Donorojo, Pacitan, we achieve conclusions: that the Javanese architecture Donorojo Pedesaan in the district, Pacitan has three types namely omah Joglo, Limasan and panjang. Omah joglo, has two types based on the characteristics of their roof with brunjung roof with two interconnected emper interconnected and brunjung with a one interconnected emper.

Both types of omah joglo still have similarities in the frame that is supported by saka guru (main pillar) with tumpangsari (heaped beam), saka tengahan (mid pillar) and saka uger-uger. Both types of omah joglo has the same function those are as the living room. Its existence cannot stand alone as a residential unit, but should blend with omah limas and panjang so that it becomes a unity of rural Java housing. As a single unit dwelling, the layout of omah joglo is located at the very front and closed.

Omah Limasan, has two types of omah limasan. The first is omah limasan consisted of one omah limasan with the main function of occupancy. The second consisted of two amount omah limasan are lined up from front to back. Both types omah limasan can not stand alone as a dwelling but always supported by omah panjang as supporters of pawon function. Omah limasan has a characteristic shape which is located on the roof; the roof that have shape like a pyramid and patio at the bottom is contiguous. The existence of a roof supported by saka of eight.

Omah limasan size used pecak (feet), and the standard amount of omah limasan measured by size for penuwun or nok. Number of pecakon an omah limasan average pecak ranging from 13, 14, 16, and 17. The figures pecak has a meaning associated with the religion of Islam and the Wali Songo (propagator of Islam in Java) especially in order to carry out the guidance of religious communities Islam with the best.

For The oldest omah is called Sekar pithi and functioning as a separate dwelling and supporting omah joglo and limasan with pawon function.

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## REFERENCES

- 1) Barney G. Glaser dan Anselm L. Strauss, 1969, *The Discovery of Grounded Theory, Strategies for Qualitative Research*, Aldine Publishing Company, Chicago.
- 2) Tri Yuniastuti, Satrio HB Wibowo, Sukirman, 2016, *Rumah Tradisional Jawa: Pacitan*, Lintang Pustaka Utama, Sleman, Yogyakarta.
- 3) Umar Kayam, 1985, *Arsitektur Masyarakat Transisi*, Konggres Nasional III Ikatan Arsitek Indonesia, Jakarta.
- 4) Yulianto Sumalyo, 1997, *Arsitektur Modern Akhir Abad XIX dan Abad XX*, Gadjah Mada University Press.
- 5) Yvonna S. Lincoln & Egon G. Guba, 1985, *Naturalistic Inquiry*, Sage Publications, London-New Delhi.